

PHILADELPHIA NAVAL COMPLEX

PHILADELPHIA, PENNSYLVANIA

Engineering Field Division/Activity: NORTHDIV

Major Claimant: BUMED/COMNAVSEASYS/COM/CINCLANTFLT

Size: 1,153 Acres

Funding to Date: \$31,477,000

Estimated Funding to Complete: \$11,436,000

Base Mission: Provided general and specialized clinical hospitalization services to active duty members of the armed forces and their dependents; provided logistical support for ships and service craft; overhauled, repaired and outfitted ships and craft; research, development, testing and evaluation of shipboard systems

Contaminants: Heavy metals, PCBs, POLs, solvents, volatile organic compounds

Number of Sites:		Relative Risk Ranking of Sites:	
CERCLA:	11	High:	7
RCRA Corrective Action:	12	Medium:	9
RCRA UST:	8	Low:	5
Total Sites:	31	Total Sites:	31

BRAC I

BRAC II



EXECUTIVE SUMMARY

The Philadelphia Naval Complex includes the Philadelphia Naval Hospital (NAVHOSP), the Philadelphia Naval Station (NAVSTA) and the Philadelphia Naval Shipyard (PNSY). The Base Realignment and Closure (BRAC) of 1988 mandated the closure of the NAVHOSP. In 1990, BRAC II directed the closure of NAVSTA Philadelphia, and placed the PNSY in a closed and reserved status. In 1995, BRAC IV completely closed the Shipyard function but retained some Navy tenant activities.

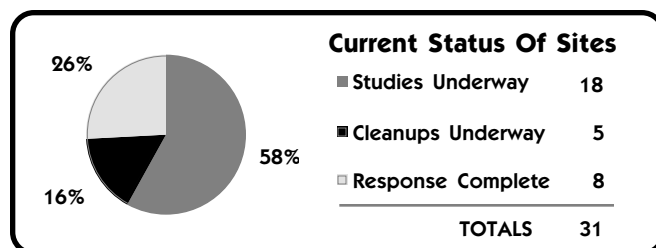
The Philadelphia Naval Complex is situated 4 miles south of the Philadelphia central business district at the confluence of the Delaware and Schuylkill Rivers. It encompasses approximately 1,170 acres, with PNSY accounting for 300 acres and Naval Base (NAVBASE) 793 acres (NAVBASE owns the land while NAVSTA owns most of the buildings; henceforth, all lands and buildings will be referred to as NAVBASE). The off-base parcel consists of the former Hospital (50 Acres) and its supporting buildings, and the Capehart housing area (27 acres). The current plan for the Philadelphia Naval Complex is to excess the NAVHOSP, the NAVBASE properties and the majority of PNSY properties. The BRAC 95 "footprint" is under development to segregate the retained from the excess property. The retained Navy activities include: The Norfolk Naval Shipyard (NNSY) Naval Foundry and Propeller Center; The Naval Surface Warfare Center, Carderock Division - Ship Systems Engineering Station (NSWCDD-SSES); certain waterfront facilities under the cognizance of the Naval Inactive Ship Maintenance Facility (NISMF); Public Works Center San Francisco Detachment Philadelphia (PWC DET); the Naval Bureau of Medicine (BUMED) and the Naval Fleet and Industrial Supply Center (FISC).

The disposal of the NAVHOSP and NAVBASE properties has been implemented in accordance with the Community Reuse Plan. This plan was developed by the City of Philadelphia, Office of Defense Conversion,

with coordination from the BRAC Cleanup Team (BCT) and the DOD Base Transition Coordinator. The Reuse Plan also addresses the leasing of selected PNSY facilities and properties.

The Navy Installation Restoration Program (IRP) was instituted to identify potential contamination at Naval facilities resulting from past operations and to implement corrective measures at sites that proved to have elevated concentrations of constituents of concern. Although the Philadelphia Naval Complex is not listed on the NPL, and does not require a Federal Facilities Agreement (FFA) to regulate the IRP, all Remedial Investigations (RIs), studies, designs and Remedial Actions (RAs) are being conducted in accordance with the IRP, CERCLA and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP) criteria, and in cooperation with EPA Region III and the Pennsylvania Department of Environmental Protection. An Initial Assessment Study (IAS), completed in July 1983, identified 11 potentially contaminated sites. Subsequent confirmation studies in 1986, 1987 and 1988 identified an additional 4 sites. Sites 3, 6, 7 and 15, referred to as PCB sites, underwent a Remedial Investigation/Feasibility Study (RI/FS) and are under a Record of Decision (ROD) which requires two phases of soil remediation actions. Phase I, involving excavation and removal of soil exceeding 10 mg/kg of the chemical additive PCB concentration, was completed. An amended ROD was signed in 1995 to change the cleanup level to 5 ppm. The remediation at Sites 6, 7 and 15 is completed. IR Sites 1, 2 and 5 are contaminated with heavy metals from debris and sandblast grits; and Sites 12-14 are contaminated with petroleum hydrocarbon. These six sites are currently in the RI/FS Phase. Sites 4 and 5 are presently undergoing additional sampling and feasibility studies. Sites 9, 12 and 14 were transferred to the State's Petroleum Cleanup Program. Site 14 will be recommended for No Further Action (NFA). Sites 10 and 11 are candidates for no further action based upon the IAS findings and subsequent sampling. A dredging operation was conducted as required at Site 8 to allow for additional ship berthing; however, future requirements for dredging are being evaluated.

In 1991, EPA conducted a RCRA Facility Assessment (RFA) and produced a draft report which identified 167 Solid Waste Management Units (SWMUs) and 15 Areas of Concern (AOCs). The final document in January 1995 listed 179 SWMUs and AOCs at the Philadelphia Naval Complex. Only 12 of these sites are currently expected to require an RA.



PHILADELPHIA NAVAL COMPLEX RELEVANT ISSUES

ENVIRONMENTAL RISK



HYDROGEOLOGY - Philadelphia Naval Complex is located on what originally was known as League Island. This island and the Philadelphia area lie within the Atlantic Coastal Plain Physiographic Province, which is characterized by flat plains and low valleys. Much of the original topography has been extensively altered through filling operations. These filling operations have connected the island to the mainland and expanded the island into the river in several places. The soil types at Philadelphia Naval Complex have been classified by the Soil Conservation Service as urban land. The fill material consists of sand, gravel, rubbish, garbage, cinders and similar material in excess of five feet thick throughout much of the complex. The hospital property is also located on altered wetland. The coastal plain of southeastern Pennsylvania is drained by the Delaware River and its tributaries; the largest tributary is the Schuylkill River. The Delaware River forms the southern and eastern boundaries of the NAVBASE and PNSY, while the Schuylkill River forms the western boundary. All surface drainage flows directly into the Delaware River, the Schuylkill River or into the Naval Reserve Basin, which drains into the Schuylkill River. Tidal fluctuations from both rivers and the Atlantic salt wedges have extended upstream past the facility. Underlying the area is the Potomac-Raritan-Magothy aquifer system. This system consists of a sequence of fluvial and estuarine sedimentary strata which accumulated on the metamorphic basement rock. This aquifer system yields three separate aquifers at different depths.



NATURAL RESOURCES - The Navy has completed two Environmental Impact Statements (EISs). The draft EIS for the NAVBASE property was completed in December 1995. The final EIS is expected to be completed and submitted to the EPA in July 1996. The draft EIS for the Hospital property was completed in August 1994. A supplemental draft EIS was issued in January 1996 to provide additional alternatives. Philadelphia Naval Complex maintains a monitoring program of wildlife at the facility. Two endangered species have been identified in the area: the Peregrine Falcon and the Short-nose Pigeon. The cultural survey report, finalized in 1994 found the following: three archeological sites with potential for eligibility on the National Register of Historic Places: a World War I Barracks site, a structure of unknown origin/use at the south end of the Marine Corps Parade Grounds, and an area surrounding Quarter A. The survey also found two National Register-eligible historic districts with 2,287 contributing buildings, structures and objects. Two buildings, Building 100 Marine Barracks, and the Commandant Quarters, Quarters A at NAVBASE are listed on the National Register of Historic Places with two others eligible and under consideration. Presently, the Pennsylvania State Historic Preservation Officer is reviewing the reports. The final cultural survey report of the Hospital parcel was completed in 1993 with the recommendation that the entire site, 47 buildings, be declared a National Register-eligible historic district. There are no potential significant archeological sites at the Hospital.



RISK - Philadelphia Naval Complex is not on the NPL, thus no comprehensive Agency for Toxic Substance and Disease Registry (ATSDR) Public Health Assessment was done. However, human health risk assessment and Feasibility Studies (FSs) are in progress at Sites 1, 2, 4 and 5. The results are presently being reviewed by the regulators. A base-wide ecological risk screening is being conducted to create a broader understanding of the Philadelphia Naval Complex. Northern Division will continue to discuss the risk assessment process with the BRAC Cleanup Team (BCT).

REGULATORY ISSUES



LEGAL AGREEMENTS - A ROD for Sites 3, 6, 7 and 15 was signed in February 1992. An amended ROD for these sites was signed in December 1995. An Action Memorandum to implement bank stabilization at Site 4 was finalized in November 1993. An Action Memorandum to remove blasting grits and debris was signed in August 1995.



PARTNERING - A partnering agreement has been developed and signed by BCT members. The members include: Naval Facilities Engineering Command (NAVFAC), Northern Division (NORTHDIV), EPA Region III, and the Commonwealth of Pennsylvania Department of Environmental Resources (PADER). Supporting the BCT are the members of the Project Team, which includes technical specialists from EPA, PADER, Philadelphia Naval Complex, the City of Philadelphia, Northern Division and contractors.

COMMUNITY INVOLVEMENT



RESTORATION ADVISORY BOARD - In February 1994, a Restoration Advisory Board (RAB) was established, and is chaired by the BRAC Environmental Coordinator (BEC), a City of Philadelphia representative and a representative from the community. Meetings have been held monthly since its inception, and are advertised in the local newspaper and the Pennsylvania Department of Environmental Resources newsletter.



COMMUNITY RELATIONS PLAN - The Community Relations Plan (CRP) was issued in February 1995 and is being updated on a quarterly basis.



INFORMATION REPOSITORY - An Information Repository was established at the Free Public Library of Philadelphia, Passyunk Branch, 20th and Shunk Streets.

BASE REALIGNMENT AND CLOSURE



BRAC - In FY94, an Environmental Baseline Survey (EBS) for the Hospital was completed. Two EBSs for the PNSY and the NAVBASE were completed in FY95. None of the property was identified in accordance with the Community Environmental Response Facilitation Act (CERFA) as uncontaminated. However, property was identified as transferable in accordance with CERCLA. The Navy conducted an EBS Phase II investigation which required a study of 57 areas at the Philadelphia Naval Complex. Currently 21 areas have been identified for further evaluation.



BRAC CLEANUP TEAM - The BRAC Cleanup Team (BCT) was formed in November 1993 and continues to expedite the review process and facilitate communication between its members through weekly meetings and the use of electronic communication media. The weekly meetings include a representative from the City of Philadelphia and members of the project cleanup team. A partnering agreement has been developed and signed by BCT members.



DOCUMENTS - A BRAC Cleanup Plan (BCP) was prepared in March 1994. The plan was revised extensively in March 1995, and it is currently undergoing its annual revision to include new information and status of the properties. Three Environmental Baseline Survey (EBS) reports were prepared by NORTHDIV. The final report for the Hospital was completed in June 1994, and the final reports for PNSY and NAVBASE were issued in December 1994. The EBS was done in accordance with DOD and ASTM guidelines. The results identified 57 review items, which were categorized as follows:

- Category 1** - NFA - 6 sites
- Category 2** - confirmatory sampling - 15 sites
- Category 3** - full sampling - 16 sites
- Category 4** - other action - 21 sites

The EBS Phase II work plan was prepared and implemented for the 31 sites in Categories 2 and 3 in January 1995. The results are currently being reviewed by the BCT. Of the 21 review items for Category 4, 14 were either closed-out based on additional investigation or addressed by another environmental program. The remaining eight review items (one item was divided and counted twice) required further investigation and/or surface

PHILADELPHIA NAVAL COMPLEX

cleaning, waste removal, or other action. These are expected to be completed by summer 1996.

Environmental Conditions of Property Classification						
1	2	3	4	5	6	7
0 acres	627 acres	8 acres	0 acres	8 acres	83 acres	148 acres



LEASE/TRANSFER - Property transfer in the excess areas of the Naval Complex will be performed by deed. Within the retain area, a master leasing agreement has been established.

When the City expresses interest in a particular building, Northern Division performs a site-specific Environmental Baseline Survey. A Finding of Suitability for Lease (FOSL) is then issued and when approved, the lease is executed. As of February 1995, 26 potential tenants have been identified. Five FOSLs were completed for reuse of the NSY and NAVSTA buildings and facilities. Reuse includes: ship repair, railcar components manufacturing and office spaces.



REUSE - The City of Philadelphia Office of Defense Conversion has issued reuse plans for the Philadelphia Complex in two parts. A plan for the hospital was issued in 1993, while the plan for the remainder of the complex (NAVBASE, PNSY and the Capehart housing area) was completed in September 1994. PNSY and NAVBASE have been divided into four areas for future development purposes. They are as follows: The Shipyard area's primary role will be

providing locations for heavy industries. As part of BRAC IV, a significant portion of the PNSY is now planned for disposal rather than preservation. The City is revising the reuse plan and seeking tenants that would continue the shipbuilding/refitting or similar functions historically associated with the Philadelphia Naval Complex. The League Island Center Parcel is projected for research and development, educational, light industrial and commercial facilities and administrative facilities. The Girard Point Industrial Park is envisioned as an industrial and distribution warehouse area that will support the overall industrial activities. The East End Commercial Park will accommodate large site development that is not generally available elsewhere in the Philadelphia region. At present, EBS and Findings of Suitability to Transfer (FOST) are being prepared for two subparcels within the east end. The transfers are planned for 1996. An intermodal transportation facility is also being considered. A waterfront park is planned along the Delaware River. The Capehart Housing area is to remain residential. The redevelopment plan foresees the parcel being sold to a private developer.

The NAVHOSP is to be divided into three sections. The eastern and southern portion of the property, with mature vegetation, will serve as an extension to the existing Roosevelt Park. Nine hundred parking spaces will be provided in the area fronting Broad Street, and the plan for the north-central and western areas of the parcel is planned for the development of a nursing home/managed care facility and townhouse consistent with nearby area uses.

HISTORICAL PROGRESS

FY83

Sites 1-15 - An IAS, similar to a Preliminary Assessment (PA), and subsequent confirmation studies in 1986-1987 were performed for the NSWC and the PNSY. One UST site (Site 009) and fourteen CERCLA sites were identified.

FY87

Sites 1-8 and 12-15 (PNSY) - A Site Inspection (SI) was completed.

FY90

Sites 3, 6 and 15 - A Remedial Investigation/Feasibility Study (RI/FS) was completed.

USTs 4 and 5 (PNSY) - The Initial Site Characterization (ISC) was completed.

Site 7 (PNSY) - The RI/FS was completed.

FY91

Site 3 (PNSY) - An Interim Remedial Action (IRA) was completed.

USTs 1 and 2 (PNSY) - The ISC phase was completed.

UST 4 (PNSY) - The Corrective Action Plan (CAP) was completed.

FY93

UST 1 (NAVHOSP) - The ISC was completed, the RI/FS is in progress, and is expected to be completed in FY96.

UST 2 (NAVHOSP) - The PA was completed.

FY94

UST 3 (PNSY) - The ISC was completed.

PROGRESS DURING FISCAL YEAR 1995

FY95

UST 2 (NAVHOSP) - The CAP was completed, and the corrective action Design (DES) was completed.

Site 6 (PNSY) - The Remedial Design (RD) was completed.

Site 4 (PNSY) - An IRA was completed. The river bank was stabilized to prevent the corrosion of the existing waterfront landfill.

Sites 1 and 2 (PNSY) - IRAs were initiated to remove asbestos, debris and blasting grits.

UST 6 - The ISC was completed.

USTs 1, 2 and 4 - The CAPs were completed.

UST 4 - DES was completed.

SWMUs 1-16 - An RFA identified 16 SWMUs that require remediation. RFI was completed for SWMUs 5 and 13.

Site 7 (NSWC) - RD was completed.

SWMU 15 - Was determined to require NFA.

PHILADELPHIA NAVAL COMPLEX PLANS FOR FISCAL YEARS 1996 AND 1997

FY96

UST 2 (NAVHOSP) - RA of soil removal is planned to start.
 Sites 1-3, 5, 12 and 13 (PNSY) - The RI/FS is expected to be completed.
 Sites 1-3, 12 and 13 (PNSY) - The RD is expected to begin.
 Sites 1-3, 6 and 15 - Begin an RA phase.
 Sites 1, 2 and 5 - Begin a removal action.
 UST 3 - The CAP is expected to be completed.
 USTs 2 and 3 - The design for the RA is expected to be completed.
 SWMUs 5 and 13 - Two removal actions are planned, shoreline stabilization will be done at SWMU 5; the removal of the smokestack and the incinerator is planned for SWMU 13.
 Site 14 - A draft RI recommending NFA is expected.
 Site 7 (NSWC) - RA is expected to be done.
 SWMUs 3, 7-10 and 12 - Corrective Measures Study (CMS) is expected to be done.
 SWMUs 5 and 13 - Corrective Measures Implementation (CMI) planned.

FY97

UST 2 (NAVHOSP) - RA is expected to be completed.
 Site 4 (PNSY) - The RI/FS is expected to be completed.
 Sites 4 and 5 (PNSY) - The RD is expected to begin.
 Site 5 - Begin RA phase.
 Site 4 - Begin a removal action.
 USTs 2, 3 and 4 - The Implementation (IMP) of the remedy is expected to be completed.
 SWMU 14 - The CMS is expected to be done.
 SWMUs 3, 7 - 10, 12 and 14 - Designs for corrective action are planned.
 SWMUs 10, 12 and 15 - CMI will begin.
 Site 8 (NSWC) - The RI/FS is expected to be completed.
 SWMU 16 - CMS is planned.

PROGRESS AND PLANS

CERCLA	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
PA	11							
SI	9							
RI/FS	3		5	1				
RD		2	5	2				
RA			6	1	3			
IRA	2(2)	1(1)	3(3)					
RC	2		4	2	3			
Cumulative Response Complete	18%		55%	73%	100%			
RCRA CA	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
RFA		12						
RFI		2						
CMS			6	1				
DES				7				
CMI			2	2	5			
IRA			2(2)					
RC		3	2	2	5			
Cumulative Response Complete		25%	42%	58%	100%			
UST	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
ISC	7	1						
INV								
CAP	1	4	2					
DES		2	2					
IMP			2	3				
IRA								
RC		3		1	1	3		
Cumulative Response Complete		38%		50%	63%	100%		